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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,631	11/18/2003	Jin-Seung Sohn	Q78520	3244

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EXAMINER

MILLER, BRIAN E

ART UNIT PAPER NUMBER

2627

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/714,631

Applicant(s)

SOHN ET AL.

Examiner

Brian E. Miller

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 155-176 is/are pending in the application.
- 4a) Of the above claim(s) 159,160 and 175 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 155-158,161-174 and 176 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 155-176 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claims 155-176 are now pending.

Election/Restrictions

1. Applicant's election of Species (1) in the reply filed on 6/13/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 159-160, 175 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/13/06.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 155-158, 161-174, 176 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (a) Claim 155, the preamble recites "a self-compensating dynamic balancer apparatus for a disk player..." and further recites "with said rotation axis to rotate in use with at least one of said rotational components" which language renders the claim(s) indefinite. The claim is directed to a balancer apparatus, not to a disk drive, therefore positive structural cooperation of the balancer to the disk drive is improper. Therefore, the metes and bounds of the claim(s) cannot be readily ascertained at this time; (b) further, with respect to claim 155, the language "to rotate in use with at least one of said rotational components" is

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indefinite, since no rotational components have been particularly set forth and it is not readily apparent which component is being referenced.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 155, 158, 161-165, 169-172, 176 are rejected under 35 U.S.C. 102(b) as being anticipated by Hellerich (US 3,854,347). In so far as the claims are definite and understood, (As per claim 155) Hellerich discloses (see FIGs. 2-5) a self-compensating dynamic balancer apparatus for a disk player having rotational components for rotating a disk about a rotation axis to record and reproduce information from the disk, the apparatus comprising: a self-compensating dynamic balancer 50 locatable co-axial with the rotation axis to rotate in use with at least one of the rotational components; a mobile unit 52 arranged to be freely movable within a non-magnetic hollow tube (see col. 3, line 58-col 4, line 6) by centrifugal force generated by rotation of the disk such that the center of gravity of the self-compensating dynamic balancer moves to be located opposite to the center of gravity of the disk with respect to the rotation axis (which is basic balancing theory well known in the art-see also col. 1, line 63-col. 2, line 10); wherein the mobile unit includes at least one rigid body 52; (as per claim 158) wherein the tube is formed of a body having a race in which the mobile unit is disposed and a cover member which covers the race by coupling to the body, i.e., the body and cover are integrally formed in Hellerich; (as per claim 161) wherein the rigid body is formed into a shape of a spherical body

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which can roll inside the race (col. 3, line 60); (as per claims 162, 163, 165) wherein the rigid body is formed of a non-magnetic material, e.g., stainless steel (one of SUS300, SUS304, SUS316), in order to avoid being influenced by a magnetic force (see col. 3, line 66); (as per claim 164) wherein the substance, e.g., stainless steel, does not corrode; (as per claim 169) wherein the cross section of the tube enclosing the mobile unit has a shape of rectangular or oval (see FIG. 5 and col. 4, line 48); (as per claims 170, 171 & 172) wherein the tube enclosing the mobile unit is synthetic resin, e.g., plastic (see col. 3, last line), which does not corrode; (as per claim 176) wherein the self-compensating dynamic balancer is formed integrally with the turntable 12 (see FIG. 2).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 156, 157, 168 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hellerich in view of Taylor et al (WO 93/23687). For a description of Hellerich, see the rejection, supra. Hellerich is silent as to having a fluid within the hollow tube.

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Taylor et al, within the rotational balancing art, discloses a self-compensating dynamic balancer that includes a hollow tube 11, spherical balls 21 and fluid 107 (see FIGs 11&12 and page 16, line 15 thru page 18, line 9). From this teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the self-compensating dynamic balancer of Hellerich with a fluid, as taught by Taylor et al. The motivation would have been: providing a fluid into the hollow tube with the balls, would have enabled the balls to move within the groove at a slower rotational speed, thereby providing a smoother balancing apparatus. Furthermore, the fluid would also provide an inherent dampening effect to the noise of the rotating balls within the hollow tube as well as providing a reduction in friction, as would have been readily apparent to a skilled artisan.

10. Claims 166-167, 173-174 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hellerich. For a description of Hellerich, see the rejection, supra. With respect to the above claims, Hellerich is expressly silent as to coating the rigid body and/or the hollow tube with an anti-oxidation coating, however, it would have been considered obvious to a skilled artisan to have provided such coating, especially if the components, i.e., tube, balls, were originally formed from a corrosive material. As would have been readily apparent, providing such a coating would have prevented corrosion to these components, providing longevity thereof. If provided over the materials as disclosed by Hellerich, such a coating would provide inherent lubrication characteristics, as would have been readily apparent by a skilled artisan.

Response to Arguments

11. Applicant's arguments with respect to claims 155-176 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (571) 272-7578. The examiner can normally be reached on M-TH 6:30am-4:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Brian E. Miller
Primary Examiner
Art Unit 2627

BEM
August 18, 2006